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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/090,997	03/05/2002	Dieter Pauschinger	P01,0533	6789

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EXAMINER
SCHUBERT, KEVIN R

ART UNIT	PAPER NUMBER
2137	

DATE MAILED: 10/12/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.	Applicant(s)
Office Action Summary	10/090,997	PAUSCHINGER, DIETER
	Examiner	Art Unit	
	Kevin Schubert	2137	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>22 September 2005</u>.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-14</u> is/are pending in the application.

   4a) Of the above claim(s) <u>8 and 11</u> is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1-14</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on <u>05 March 2002</u> is/are: a)☒ accepted or b)☐ objected to by the Examiner.

   Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

   Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

   a)☒ All b)☐ Some * c)☐ None of:

   1.☒ Certified copies of the priority documents have been received.

   2.☐ Certified copies of the priority documents have been received in Application No. _____.

   3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

   * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)   4) ☐ Interview Summary (PTO-413)
                                                Paper No(s)/Mail Date. _____ .
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)   5) ☐ Notice of Informal Patent Application (PTO-152)
    Paper No(s)/Mail Date <u>5/6/2002;12/8/2003</u>.   6) ☐ Other: _____ .

DETAILED ACTION

Claims 1-7,9-10, and 12-14 have been considered. All considered claims have been rejected.

Election/Restrictions

Claims 8,11, and 15-27 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as

being drawn to a nonelected species (8 and 11) and a nonelected group (15-27), there being no allowable

generic or linking claim. Election was made **without** traverse in the reply filed on 9/22/05.

Claim Objections

Claim 3 is objected to because of the following informalities: the word "be" in part c is

grammatically incorrect. Appropriate correction is required.

Claim 14 is objected to because of the following informalities: the phrase "an MAC" is

grammatically incorrect. Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly
claiming the subject matter which the applicant regards as his invention.

Claims 3 and 4 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing

to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The applicant refers to "said dataset" in part b of the claim. The examiner assumes the applicant is

referring to the second dataset, but it is unclear whether the applicant is referring to the first or second

dataset. Claim 4 is rejected for being dependent on indefinite claim 3.

Claim 12 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to

particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 12 contains two separate issues. First, the applicant has referred to "said use data". It is unclear

which "use data" the applicant is referring to. Second, the applicant discloses "analyzing said use data to

identify usage behavior at said use location". It is unclear whether "at said use location" refers to the

analysis or the usage behavior; more specifically, it is unclear whether or not the analysis takes place at

the use location.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness

rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-3,6-7,9-10, and 13-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Moore, U.S. Patent No. 6,133,850, in view of Schneier (Schneier, Bruce. Applied Cryptography. John

Wiley & Sons. 1996. pages 34-41).

As per claim 1, the applicant describes a method comprising the following limitations which are

met by Moore in view of Schneier:

a) non-volatilely storing at least one rate value for usage of a commodity, said rate value being

valid within a predetermined time span (Moore: Col 5, line 20 to Col 6, line 9);

b) obtaining respective measured values, using a mathematical algorithm, representing delivery

of said commodity to a use location and output of said commodity from said use location (Moore: Col 5,

line 20 to Col 6, line 9);

c) obtaining time data relating to usage of said commodity at said use location and generating at least one usage value representing usage of said commodity at said use location, from said time data and said measured values (Moore: Col 5, line 20 to Col 6, line 9);

d) generating a monetary charge for said usage of said commodity at said use location from said usage value and said rate value (Moore: Col 5, line 20 to Col 6, line 9);

e) generating an electronic message that includes at least said charge (Schneier: pages 37-38);

f) forming a check code for protecting said electronic message (Schneier: pages 37-38);

g) generating a protected message that contains said electronic message and said check code (Schneier: pages 37-38);

h) establishing electronic communication with a recipient at a location remote from said use location and electronically transmitting said protected message as a dataset to said recipient (Moore: Col 5, line 20 to Col 6, line 9; Schneier: pages 37-38).

Moore discloses all the limitations of the above claim except for the limitation that a *check code* accompanies the electronic message that is sent from the use location to the remote location. Combining the ideas of Schneier with Moore allows the electronic message that is sent from the use location to the remote location to include a digital signature (check code). As is well-known in the art and disclosed by Schneier, digitally signing a message provides a number of advantages, including a means to protect the authenticity of a message and a means to protect the sender's identity.

It would have been obvious to one of ordinary skill in the art at the time the invention was filed to combine the ideas of Schneier with those of Moore and use a digital signature for at least the reasons of providing a means to check the authenticity of a message and its sender.

As per claim 2, the applicant describes the method of claim 1, which is met by Moore in view of Schneier, with the following limitation:

Wherein the step of establishing said electronic communication with said recipient comprises making an initial attempt to establish said electronic communication with said recipient and, if said initial

attempt is unsuccessful at establishing said electronic communication, repeatedly attempting to establish said electronic communication with said recipient until expiration of a predetermined limit;

Moore discloses establishing electronic communication with a recipient (Col 6, lines 1-9). However, Moore does not specifically disclose repeatedly attempting to establish communication for a predetermined time limit if the initial attempt is unsuccessful. The examiner takes official notice as this idea is well-known in the art, and it would have been obvious to one of ordinary skill in the art at the time the invention was filed to incorporate this idea into Moore in view of Schneier for the purpose of efficiently and successfully establishing communication.

As per claim 3, the applicant discloses the method of claim 1, which is met by Moore in view of Schneier, with the following limitations which are also met by Moore and Schneier:

a) at said recipient, upon receiving said first dataset, checking said first dataset for authenticity generating an enable code as a second dataset (Moore: Col 5, line 20 to Col 6, line 9; Schneier: pages 37-38);

b) at said recipient, cryptographically protecting said enable code with an electronic signature of said recipient and transmitting said dataset with said electronic signature from said recipient to said use location as a return message (Moore: Col 5, lines 20 to Col 6, line 9; Schneier: pages 37-38);

c) at said use location, checking said enable code for authenticity by verifying said electronic signature (Schneier: pages 37-38).

As per claims 6 and 7, the applicant describes the method of claim 1, which is met by Moore in view of Schneier, with the following limitation which is also met by Moore:

The additional step of generating said usage value at an end of a predetermined time segment for use of said commodity (Moore: Col 5, lines 22-26).

As per claim 9, the applicant describes the method of claim 1, which is met by Moore in view of Schneier, with the following limitation which is also met by Moore:

a) identifying an event related to generation of said charge (Moore: Col 5, line 20 to Col 6, line 9);

b) upon an occurrence of said event, calculating said charge to obtain an event-related charge (Moore: Col 5, line 20 to Col 6, line 9);

c) storing said event-related charge together with the usage value that was employed to generate said event-related charge (Moore: Col 5, line 20 to Col 6, line 9).

As per claim 10, the applicant describes the method of claim 9, which is met by Moore in view of Schneier, with the following limitation which is also met by Moore:

Wherein the step of identifying said event comprises identifying a change of said rate value as said event (Moore: Col 5, line 20 to Col 6, line 9).

As per claim 12, the applicant describes the method of claim 1, which is met by Moore in view of Schneier, with the following limitation which is also met by Moore:

Analyzing said use data to identify usage behavior at said use location (Moore: Col 5, line 20 to Col 6, line 9).

As per claim 13, the applicant describes the method of claim 1, which is met by Moore in view of Schneier, with the following limitation which is also met by Schneier:

Generating an authentication code as said check code (Schneier: pages 37-38).

As per claim 14, the applicant describes the method of claim 13, which is met by Moore in view of Schneier, with the following limitation which is also met by Schneier:

Selecting said authentication code from the group consisting of a hash code and an MAC, and forming said authentication code according to a symmetrical encryption algorithm (Schneier: pages 35-37).

Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Moore in view of Schneier in further view of Nielsen, U.S. Patent No. 6,453,327.

As per claim 4, the applicant describes the method of claim 3, which is met by Moore in view of Schneier, with the following limitations which are met by Moore and Nielsen:

a) if said enable code is authentic, resetting said charge to zero (Moore: Col 6, lines 1-9; Nielsen: Col 14, lines 47-56);

b) if said enable code is not authentic, inhibiting further usage of said commodity at said use location (Moore: Col 6, lines 1-9; Nielsen: Col 14, lines 47-56);

Moore in view of Schneier disclose all the limitations of claim 3. Moore in view of Schneier also disclose that an enable code is sent from the remote location to the use location. When the enable code is received, the charge is reset to zero. While waiting for the enable code, further usage of the commodity at the use location is inhibited. Moore in view of Schneier, however, do not disclose making a determination that the enable code message is authentic.

Nielsen discloses the idea that a received message may be accepted if it is authentic and discarded if it is not authentic. Combining the ideas of Nielsen with those of Moore in view of Schneier allows the system to check for the authenticity of the enable code. It would have been obvious to one of ordinary skill in the art at the time the invention was filed to combine the ideas of Nielsen with those of Moore in view of Schneier because checking for the authenticity of the enable code makes the system more robust by enhancing security.

Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Moore in view of Schneier in further view of Selph, UK Patent Application No. GB 2183852.

As per claim 5, the applicant describes the method of claim 1, which is met by Moore in view of Schneier, with the following limitation which is met by Selph:

Wherein the step of generating said electronic message comprises including said usage value and said time data in said electronic message together with said charge (Col 3, lines 77-88);

Moore in view of Schneier disclose all the limitations of claim 1. However, Moore in view of Schneier do not disclose sending the usage and time data. Selph discloses the idea of reporting usage and time data back to a remote location. It would have been obvious to one of ordinary skill in the art at the time the invention was filed to combine the ideas of Selph with those of Moore in view of Schneier because reporting usage and time data allows the remote location to further track the commodity usage for reasons such as billing and/or charge verification.

Conclusion

This action is made non-final.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kevin Schubert whose telephone number is (571) 272-4239. The examiner can normally be reached on M-F 7:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Emmanuel Moise can be reached on (571) 272-3865. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

KS

EMMANUEL L. MOISE
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